

Unit Title:	Computer games development
OCR unit number:	5
Unit reference number:	F/601/3165
Level:	3
Credit value:	10
Guided learning hours:	71

Evidence for this unit can only be achieved through actual work in a work environment. Simulation is not permissible for any competence based unit.

Unit aim

The aim of this unit is that learners will:

- Understand computer game architecture and components
- Understand the computer games industry
- Be able to evaluate existing computer games
- Develop a computer game specification
- Implement elements of a computer game

Learning Outcomes	Assessment Criteria	Knowledge, understanding and skills
The Learner will: 1 Understand computer game architecture and components	The Learner can: 1.1 Describe the hardware and software components of a video game system	<ul style="list-style-type: none"> • the hardware, display devices, any storage media and interface devices • the capabilities of the devices • the different platforms that could be used for games
2 Understand the computer games industry	2.1 Describe the stages of evolution of computer game industry 2.2 Describe the roles and activities required to develop modern computer games 2.3 Explain computer game development processes and terminology 2.4 Explain computer game programming methods and techniques	<ul style="list-style-type: none"> • how to summarise the stages of evolution of computer game industry: <ul style="list-style-type: none"> - pre-production - pitch - game design - prototype - production - programming - testing - completion - maintenance

Learning Outcomes	Assessment Criteria	Knowledge, understanding and skills
		<ul style="list-style-type: none"> • how to summarise the roles and activities required to develop computer games <ul style="list-style-type: none"> - producer - designers - artists - programmers - level designers - sound engineers - testers • computer game development processes and terminology: <ul style="list-style-type: none"> - pre-production - pitch - game design - prototype - production - programming - testing - completion - maintenance • computer games programming methods and techniques: <ul style="list-style-type: none"> - top down design - modularisation - structure diagrams - data dictionary - system requirements
3 Be able to evaluate existing computer games	3.1 Produce a structured evaluation of an existing computer game	<ul style="list-style-type: none"> • how to evaluate an existing computer game with regards to: <ul style="list-style-type: none"> - features good and bad including: <ul style="list-style-type: none"> ○ game objectives ○ game structure ○ genre ○ narrative structure ○ any characters ○ visual style ○ any sounds ○ scoring system

Learning Outcomes	Assessment Criteria	Knowledge, understanding and skills
		<ul style="list-style-type: none"> - legal and ethical issues to include: <ul style="list-style-type: none"> o age restrictions o appropriateness of content o copyright o PEGI
<p>4 Develop a computer game specification</p>	<p>4.1 Produce a pre-production proposal document for a computer game project</p> <p>4.2 Identify the components required to develop a computer game</p> <p>4.3 Produce an implementation plan for a computer game development</p>	<ul style="list-style-type: none"> • how to document their ideas based on the requirements of the project • how to identify the activities to be carried out including: <ul style="list-style-type: none"> - proposed timescales - deadlines - assets to be sourced - equipment to be used • how to review the plan against the project requirements making changes as required
<p>5 Implement elements of a computer game</p>	<p>5.1 Design components of a computer game</p> <p>5.2 Develop components of a computer game</p> <p>5.3 Test components of a computer game</p>	<ul style="list-style-type: none"> • how to create the design using a recognised format to meet the needs of the project for example: <ul style="list-style-type: none"> - detailed storyboard - flow chart • how to create a prototype of the game • how to create and use a test plan to test the functionality of the game

Assessment

It is the assessor's role to satisfy themselves that evidence is available for all performance, knowledge and evidence requirements before they can decide that a candidate has finished a unit. Where performance and knowledge requirements allow evidence to be generated by other methods, for example by questioning the candidate, assessors must be satisfied that the candidate will be competent under these conditions or in these types of situations in the workplace in the future. Evidence of questions must include a written account of the question and the candidate's response. Observations and/or witness testimonies must be detailed and put the evidence into context i.e. the purpose of the work etc.

In addition to the recognition of other qualifications, candidates may claim accreditation of prior achievement for any of the elements assessment criteria or complete units of competence, as long as the evidence fully meets the criteria and the candidate can prove that it is all their own work. It is important also that assessors are convinced that the competence claimed is still current. If the assessors have some doubts, they should take steps to assess the candidate's competence directly. An initial assessment of candidates is recommended.

All the learning outcomes and assessment criteria must be clearly evidenced in the submitted work, which is externally moderated by OCR.

Results will be Pass or Fail.

Guidance on assessment

Evidence can reflect how the candidate carried out the process or it can be the product of a candidate's work or a product relating to the candidate's competence.

For example: The process that the candidate carries out could be recorded in a detailed personal statement or witness testimony. It is the assessor's responsibility to make sure that the evidence a candidate submits for assessment meets the requirements of the unit.

Questioning the candidate is normally an ongoing part of the assessment process, and is necessary to:

- test a candidate's knowledge of facts and procedures
- check if a candidate understands principles and theories *and*
- collect information on the type and purpose of the processes a candidate has gone through
- candidate responses must be recorded

It is difficult to give a detailed answer to how much evidence is required as it depends on the type of evidence collected and the judgement of assessors. The main principles, however, are as follows: for a candidate to be judged competent in a unit, the evidence presented must satisfy:

- all the items listed, in the section 'Learning Outcomes'
- all the areas in the section 'Assessment Criteria'

The quality and breadth of evidence provided should determine whether an assessor is confident that a candidate is competent or not. Assessors must be convinced that candidates working on their own can work independently to the required standard.

Additional information

For further information regarding administration for this qualification, please refer to the OCR document '*Admin Guide: Vocational Qualifications*' on the OCR website www.ocr.org.uk .